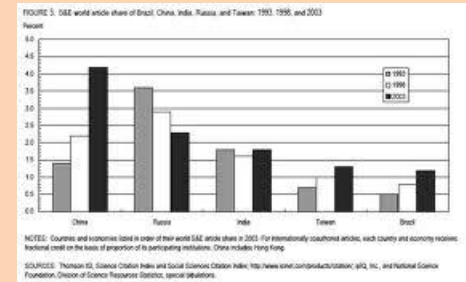


JETS Seminar

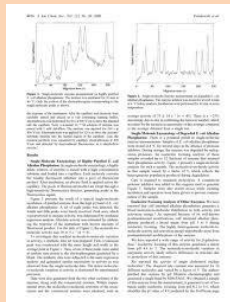
My research philosophy and practices: how to translate your ideas into Q1 papers

by

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Outline of presentation

- University ranking system.
- Journal ranking indices.
- What makes a Q1 journal a Q1 journal?
- Criteria for accepting articles for publication in Q1 journals.
- Research philosophy.
- Writing methodology.
- Once the reviews come in.
- Conclusion.



Disclaimer: *The views and opinions expressed in this presentation are those of mine and mine only.*



University rankings system



- Currently, the performance of universities all around the world are evaluated by ranking bodies.
- Some of the most popular ranking bodies include the THE, QS, ARWU etc.
- For THE, research + citations account for **62.5%** of percentage weighting of ranking.
- For QS, citations account for **20%** of percentage weighting of ranking.
- ARWU has the most stringent ranking: research related outputs add to **90%** of percentage weighting of ranking!





University rankings system



- **Q: Why are university rankings important ?**
- **A: Because they help Universities to get good and brilliant students like you 😊**
- **Good students are extremely crucial for the research programs of Universities !**
- **Without good students, research activities (journal publications etc.) will suffer.**



Journal ranking indices

- There are many different types of journal ranking indices which are used by universities and research institutes all over the world.
- Some of the most popular journal ranking indices include the ISI Web of Science, SCImago Journal Rank index, Google Scholar etc.
- UKM uses the WoS database for evaluation purposes.
- SCImago Journal Rank index is freely available online and their data is obtained from the SCOPUS database.

Rank	Title	H5-index	H5-median
1	The Journal of Economic History	29	29
2	Studies in History and Philosophy of Science Part B: Studies in History and Philosophy of Biological and Biomedical Sciences	17	23
3	Physics	18	22
4	The Economic History Review	18	25
5	Explorations in Economic History	19	22
6	Journal of Natural History	13	18
7	INTERNATIONAL JOURNAL OF THE HISTORY AND HISTORY OF LINGUISTIC SCIENCE SERIES 4	12	18
8	Comparative Studies in Society and History	11	18
9	The Journal of American History	11	18
10	The International Journal of the History of Sport	11	17
11	Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences	11	15
12	Studies in History and Philosophy of Science Part A	10	14
13	History of Political Economy	10	14
14	CURRENT HISTORICAL KNOWLEDGE PHILADELPHIA	10	13
15	The Korean Journal of the History of Knowledge Thought	10	13
16	Law and History Review	10	12
17	Business History	9	12
18	History of the Human Sciences	9	12
19	Australian Economic History Review	9	12
20	History and Theory	9	14

What makes a Q1 journal a Q1 journal?

- Although the definition of a top quality journal are somewhat subjective, researchers generally classify an upper-tier Q1 journal as a journal having a very high H-index, SCImago journal rank indicator, impact factor/5 year impact factor, article influence score etc.
- The drive to publish in such journals are becoming increasingly important as a performance metric for researchers in university, research institutes and also industry.
- However, the number of upper-tier Q1 journals for a given field are handful in number.



Criteria for accepting articles for publication in Q1 journals

- Generally, articles submitted to upper-tiered Q1 journals are reviewed by 2 to 3 referees.
- The reviews are meant to be very rigorous so that high-standards are maintained. Furthermore, the reviewers are normally experts in your field of study.
- For acceptance to publish, the decision is normally unanimous.
- Very rarely would the journal editors overrule the decisions made by the referees.
- Review process can take as little as one month to even one year!



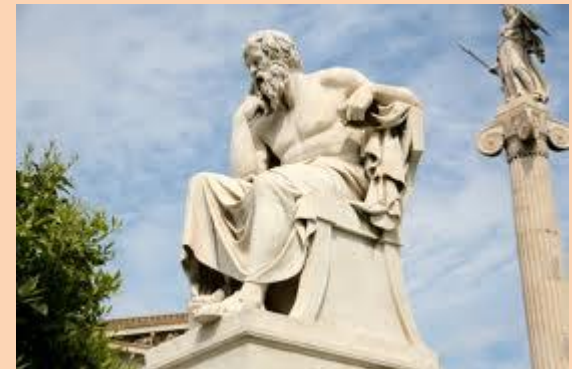
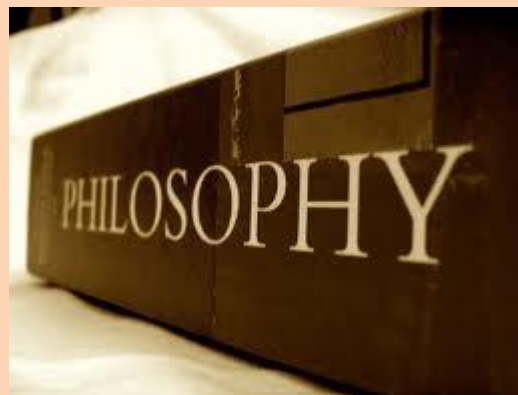
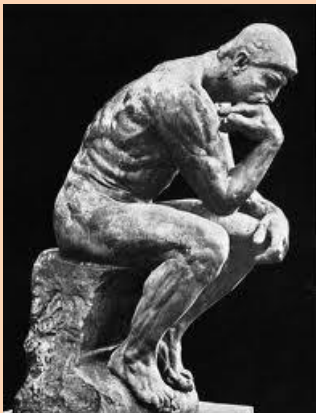
What do referees look for?

- Novelty, originality, rigor, soundness of results and interpretation, range of applicability and last but not least **LANGUAGE!**
- A very good research paper with groundbreaking results can be undone with bad grammar.
- Remember that the referees are doing the review service without any compensation as it is their duty towards the enhancement of your field.
- The comments furnished by referees **MUST** be addressed in its entirety before the article is considered for publication.



Research philosophy

- Point 1: Passion for research.
- Point 2: Thoroughness in approach.
- Point 3: Read, read and read.. and read some more!
- Point 4: Communicating is good, and it is cheap!
- Point 5: It is perfectly fine to work alone sometimes.
- Point 6: Its always about quality and not quantity.



Point 1: Passion for research

- It is important to enjoy what you are doing.
- If you enjoy doing your work, you will automatically be good in performing it.
- Having a passion for research is sufficient to embark in a career in research e.g. Ben Franklin, Edison etc.
- In my opinion, a career in research is a very satisfying prospect.



Point 2: Thorough research approach

- It is paramount for a researcher to be absolutely on top of his game i.e. skills set.
- If theoretical work is being pursued, make sure each and every equation and derivation method is understood along with its applicability and limitation.
- If computational methods and programs are used, make sure that the computational procedure and methodology is understood i.e. do not just use the computer program as black box.
- If experimental work is pursued, make sure that the experimental methodology is well understood and appreciated i.e. specimen preparation, workings of the testing machine etc.



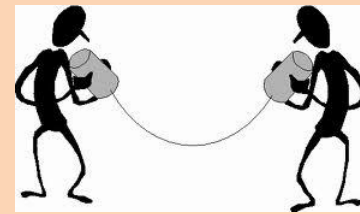
Point 3: Read, read and read some more

- Literature survey is very important aspect of conducting research.
- Current research directions and hot topics are always mostly obtained through literature survey. Generally, the Q1 journals will always address the most current topics of interest in a given field of research.
- One can always find applicability of their research work in other fields. Researchers will try to impose their ideas on other research fields by finding the state of literature.



Point 4: Communication is extremely important

- Communicating and talking to your peers is as important as conducting your own independent study.
- Other researchers will be more than willing to communicate with you if you make the effort to contact them. They believe this will help them in the long-run i.e. citation of their work, enhancing their reputation etc.
- Talk is indeed cheap! Communication can be conducted through Skype, Google Talk, Yahoo Messenger etc. at absolutely no cost.
- Attend international conferences. At conferences, go to as many symposiums as you can and talk to as many people as you can. You never know what is in store for you in terms of research ideas, directions etc.



Point 5: Working alone and independent study

- Most research nowadays are conducted in a group environment.
- This is especially true as a lot of modern day research is multi-disciplinary in nature.
- Independent study is still very important as it forces a researcher to (a) summon all of his/her resources, and (b) learn new skill sets to perform meaningful research.
- Many great researchers have published their seminal work through independent work.
- Working alone is especially important for young faculty.



Point 6: Quality over quantity

- Never get carried away by the numbers game! Always aim to publish a sufficient number of very high quality articles and not a large number of articles of mediocre quality.
- Some great researchers have only about 120 published articles through 50 years of research! Yet, they have collected countless prestigious awards and medals like the ASME Timoshenko medal, Nadai medal etc.
- Another researcher has only about 70 published articles through 40 years of research and he recently won the ASME Drucker medal for his contributions to the applied mechanics community.



Methodology for writing journal articles

- Step 1: Providing details around a new idea.
- Step 2: Organizing your article.
- Step 3: Proofreading.
- Step 4: Have a break!
- Step 5: Choosing a journal & submitting your article.



Step 1: Providing details around a new idea

- Now that you have a great idea, you are ready to share it with the other experts in your field.
- Make sure that you understand what makes your idea novel and special. Convince yourself that your idea deserves to be written up as a journal article.
- Fill out the details around your idea with robust analysis e.g. theoretical, computational and/or experimental effort. There must be no compromises in these aspects!
- It is important to carry out the work to its fullest capacity. Leave no stone unturned! Always question what is lacking in your analysis as it would automatically make you find ways to make your work better.



Step 2: Organizing your article

- To start writing up your paper, it is best to first compose the section which contains the main part of your work e.g. if the constitutive model is new, write the section which details the derivation of the model firstly.
- Once this is done, you should write the next section on the analysis and the interpretation of your results.
- Following this, you should write up the conclusion section.
- Once this is done, write up the introduction section where you mention the literature survey and emphasize why your work is important.
- Finally, write up the abstract of your paper which summarizes the novelty of your work.



Step 3: Proofreading

- After you have done writing your paper, read it from front to back thoroughly a few times to determine how your article “flows” i.e. how easily your paper reads. Please check the grammar, spelling etc. at this stage.
- Whenever possible, use simpler words to express the content of your paper. You can save a lot of time in the review process if the reviewers do not have to frequently consult the dictionary.
- Finally, try to send your article to experts in the field which you personally know. They might give you some valuable advice or tips on how to make your article better.



Step 4: Have a break!

- Once you have completed Step 3, take a break from working on your current article.
- You may use this time to work on your other projects so that you do not get bored.
- After one to two weeks, return back to work on your article. This break would have given you a brand new perspective on your research paper. This is the time where you will make major/minor changes to the flow of your article.
- You may include the pointers given to you by the friendly experts you have sent your article to in Step 3.



Step 5: Choosing a journal & submitting your article

- Once Step 4 is completed, you are already ready to submit your article for review.
- To choose a journal to submit work, determine whether your work is more specific or general in nature. Another clue would be where the articles in your research area are mostly sent to.
- Remember: Fortune always favors the brave! Be confident and take risks. You will definitely see the rewards.
- And finally, **GOOD LUCK!**



"Fortune favors the brave."
-Virgil

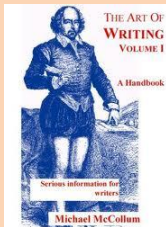
Once the reviews get in

- If the reviews are positive, CONGRATULATIONS!
- If not, do not despair. Read through the reviews very carefully and make sure that the reviews of your article are fair and just.
- If the reviews are fair, take it constructively and use the reviews to strengthen your paper.
- If the reviews are not fair, it is perfectly acceptable to write a strong rebuttal to EACH and EVERY point raised by the reviewers in a thorough manner.
- In some instances, it is also acceptable for you to ask the Editor to send your paper for an alternative review.



Conclusion

- In my opinion, journal article writing is a combination of robust science and art.
- With that said, I know of researchers who have followed the prescribed methodology similar to that given in the previous slides when they are writing their journal articles.
- Hopefully the provided methodology for writing effective articles may be used and improved by you to make it more robust.
- Most importantly, enjoy doing research and writing journal articles! If you truly enjoy what you are doing, you will automatically be good at it, and the sky's the limit.



Publishing & reviewing statistics

- WoS H-index = **17**. WoS Citations = **1028**. Citations/paper = **23.4**
- Please visit my Google Scholar profile for details regarding my published articles (type **Prakash Thamburaja** in the Google Scholar search bar).
- Have reviewed articles for: *Materials Science and Engineering A, International Journal of Solids and Structures, Journal of Alloys and Compounds, Journal of the Mechanics and Physics of Solids, International Journal of Plasticity, Journal of the Mechanical Behavior of Biomedical Materials, Smart Materials and Structures, International Journal of Structural Changes in Solids, Journal of Materials Research, Computer Methods in Applied Mechanics and Engineering, Mechanics of Materials, Journal of Magnetism and Magnetic Materials, International Journal of Mechanical Sciences, Journal of Intelligent Material Systems and Structures, Composites Part B: Engineering, Acta Materialia*